CIVIL AIM CONSULTANTS & ENGINEERS

(Building Geo-Tech & Highway Materials Testing Laboratory)

An ISO 9001-2015 Certified Company

NABL Accredited As Per ISO/IEC 17025:2017 Laboratory

Job No.: CACE/BBMP/BMC/W No.14/2021-22 Date: 20.08.2021

TEST REPORT

CLIENT	:	**Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Sri. Basavalingaraju M C,** Contractor, Bangalore.
NAME OF THE WORK	:	UGD Maintenance at Kirloskar Layout, NMH Layout & Sahyadri Layout in Bagalagunte, BBMP, Bangalore.
SAMPLE ID	:	Cement (OPC 53 Grade ACC Cement)
DATE OF MANUFACTURE	:	July - 2021
DATE OF TESTING	:	18.08.2021 to 20.08.2021
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part -5)	130 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	420 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	29.00%	-

Note:

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⇒ Any Query regarding the report must be reported within 30days from the date of testing.

For CIVIL AIM CONSULTANTS & ENGINEERS

Authorised Signatory

No.01, Satvika Nilaya, Opp. Widia Poorna Prajna School,
Ramaiah layout, Nagasandra, Bangalore - 560 073.
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Job No.: CACE/BBMP/BMC/W.No.14/2021-22 Date : 20.08.2021

TEST REPORT ON FINE AGGREGATES (SAND)

Client : **Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Sri. Basavalingaraju M C,** Contractor, Bangalore.

Name of Work : UGD Maintenance at Kirloskar Layout, NMH Layout & Sahyadri Layout in Bagalagunte, BBMP, Bangalore.

Date of Testing : 20.08.2021

IS Code : IS 383:2016

: IS 2386 (Part 1):1963(RA 2011)

Material : Sand

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Requirements as per IS 383:2016 Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	84	8.40	8.40	91.6	90-100
2.36	125	12.50	20.90	79.1	75-100
1.18	189	18.90	39.80	60.2	55-90
600 Micron	256	25.60	65.40	34.6	35-59
300 Micron	162	16.20	81.60	18.4	8-30
150 Micron	138	13.80	95.40	4.6	0-10

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Job No.: CACE/BBMP/BMC/W.No.14/2021-22 Date : 20.08.2021

TEST REPORT ON FINE AGGREGATES (SAND)
IS 1542-1992

Client **Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.

Agency **Sri. Basavalingaraju M C,** Contractor, Bangalore.

Name of Work UGD Maintenance at Kirloskar Layout, NMH Layout & Sahyadri Layout in Bagalagunte, BBMP, Bangalore.

Date of Testing : 20.08.2021

Material : Sand(Plastering) Total wt. of aggregates in gms = **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits as per IS 1542-1992
10	0	0	0	100	100
4.75	12	1.20	1.20	98.8	95-100
2.36	28	2.80	4.00	96.0	95-100
1.18	39	3.90	7.90	92.1	90-100
600 Micron	72	7.20	15.10	84.9	80-100
300 Micron	265	26.50	41.60	58.4	20-65
150 Micron	518	51.80	93.40	6.6	0-15

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Job No.: CACE/BBMP/BMC/W.No.14/2021-22 Date: 26.08.2021

TEST REPORT OF PHYSICAL REQUIREMENTS OF BRICKS

Client : **Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Sri. Basavalingaraju M C,** Contractor, Bangalore.

Name of Work : UGD Maintenance at Kirloskar Layout, NMH Layout & Sahyadri Layout in Bagalagunte, BBMP, Bangalore.

Reference to BIS codes : IS 1077 : 1992(RA 2011) Common Burnt Clay Building Bricks- Specification

: IS 3495 (Part 1 to 3) : 1992(RA 2011)
Method of Tests Burnt Clay Building Bricks
Part 1:Determination of Compressive Strength, (Cl 4.2.3)
Part 2:Determination of Water Absorption,(Cl 4.1.3)
Part 3: Determination of Efflorescence, (Cl 4)

Date of test : 20.08.2021 to 26.08.2021

COMPRESSIVE STRENGTH

Sl.No.	Compressive strength of individual bricks (N/mm2)	Acceptability as per IS 1077:1992, Clause 7.1
3	5.9	The bricks shall have a minimum average compressive strength for various classes as given in Table 1 of IS 1077: 1992. The compressive strength of any individual bricks shall not fall below the minimum compressive strength specified for the corresponding class of brick by more than 15%.
2	6.8	
1	6.2	
4	5.7	
5	5.9	
Average of 5 bricks	6.1	

For CIVIL AIM CONSULTANTS & ENGINEERS

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WATER ABSORPTION:

Sl.No.	Water Absorption(%)	Acceptability as per IS 1077:1992, Clause 7.2
1	11.5	The water Absorption of bricks shall not be more than 20% by weight upto class 12.5 and 15% by weight for higher classes.
2	10.9	
3	11.2	
4	11.5	
5	10.9	
Average of 5 bricks	**11.2**	

EFFLORESCENCE:

Sl.No.	Efflorescence	Acceptability as per IS 1077:1992, Clause 7.3
1	Moderate	The efflorescence shall not be more than 'moderate" upto class 12.5 and "slight" for higher classes.
2	Moderate	
3	Moderate	
4	Moderate	
5	Moderate	

DIMENSIONS AND TOLERANCES

Sl.No.	Dimensions obtained for 20 bricks(mm)		Acceptability as per IS 1077:1992, Clause 6.2(b)
1	Length	4530	4520 to 4680 mm
2	Width	2180	2160 to 2240 mm
3	Height	1390	1360 to 1440 mm

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Job No.: CACE/BBMP/BMC/W.No.14/2021-22

30.08.2021

Test Report Of Glazed Stoneware Pipes

Client	**Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.
Agency	**Sri. Basavalingaraju M C,** Contractor, Bangalore.
Name of the work	UGD Maintenance at Kirloskar Layout, NMH Layout & Sahyadri Layout in Bagalagunte, BBMP, Bangalore.
Type of Sample	**Glazed Stoneware Pipe(200mm dia)SP-1 Class**
Techinical Reference	**As Per IS-651:2007 (VI revision)**
Date of Testing	30.08.2021

Sl no	Internal Diameter	Thickness of Pipe	% absorption	% of Acid Resistance	Crushing Strength kN/m
1	300mm	20mm	4.9	1.68	17.30
2	300mm	20mm	5.6	1.79	16.84
3	300mm	20mm	5.4	1.65	17.36
Requirement as per IS-651:2007(VI Revision)	-----	----	Maximum 6%	Not Exceed 2.5%	Minimum 16kN/m

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